Applicant: Wei-Zhong Li
Attorney's Docket No.: 13854-006001

Serial No. : 10/075,657

Filed : February 12, 2002

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Amendments to the Specification:

Please replace the paragraph beginning at page 8, line 8 with the following amended paragraph:

Because component group 10 includes a non-reciprocal device, Faraday rotator 160, the two light beams exiting Faraday rotator 160 in the z-direction, when being reflected back into Faraday rotator 160 by a mirror, follow optical paths in the negative z-direction different from the optical paths traversed in the z-direction. For example, the two light beams traveling in the negative z-direction entering Faraday rotator 160 will eventually be merged and exist exit port 110 as an output light beam, after passing through all components in component group 10. More specifically, two light beams with the x-polarization, after passing through respectively quadrants I and II of Faraday rotator 160 in the negative z-direction, become two light beams with the x+y polarization. The polarization of the light beams before entering Faraday rotator 160 is represented by symbol 176 in FIG. 2a. The two light beams enter respectively quadrants I and II of HWP 150. The polarization of light beams before entering the HWP 150 is represented by symbol 165 in FIG. 2a.

Please replace the paragraph beginning at page 10, line 13 with the following amended paragraph:

Referring to FIG. 2b, the polarizations of the two light beams passing through respectively quadrants I and II of Faraday rotator 260 in the positive z-direction changes from the x-y polarization to the y-polarization. The polarization of the light beams before entering Faraday rotator 260 is represented by symbol 276 in FIG. 2b. After passing through Faraday rotator 260, the light beams with y-polarization are incident upon respectively quadrants I and II of polarization beam splitter 320.

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Please replace the paragraph beginning at page 10, line 25 with the following amended paragraph:

The two light beams entering respectively quadrants I and II of HWP 250 with x+y polarization, after passing though all the rest of the components in component group 20, enter one end of port 200 210, and exit from another end of port 200 210 as an output light beam.

Please replace the paragraph beginning at page 13, line 18 with the following amended paragraph:

The fourth function of component group 30 is illustrated in FIG. 3b. In FIG. 3b, polarization switch 300 is enabled. Two light beams with y-polarization (267), exiting respectively from quadrants I and II of Faraday rotator 260, are incident upon PBS 320. The two light beams with the y-polarization pass through PBS 320, and enter polarization switch 300. Since polarization switch 300 is enabled, the two light beams with the y-polarization are reflected back by polarization switch 300 to PBS 320 with the x-polarization. The two light beams, traveling in the negative z-direction with the x-polarization, are deflected by PBS 320 to reflector 310 in the y-direction. After being reflected again by reflector 310, the two light beams enter quadrants I and II of Faraday rotator 160 in the negative z-direction with the x-polarization (176).